

What We Claim Is:

1. An apparatus for the removal of sand from a metal casting encased in a sand mold located in an air stream in a thermal sand removal oven comprising:

means to move air through said oven, said means to move air operatively arranged to move air along said air stream in said thermal sand removal oven, said air stream traversing said metal casting encased in said sand mold, said air stream recirculating past said means to move air and said metal casting encased in said sand mold; and

a plurality of sand removal members, said members secured to an inside wall of said thermal sand removal oven, said members projecting into said recirculating air stream, said members located in said air stream between said at least casting encased in said sand mold and said means to move air.

2. The apparatus recited in Claim 1 wherein each said sand removal member comprises two planar members joined to form a "V" shaped structure, where each structure includes a vertex, said vertex of said "V" shape pointing generally in the direction of the air stream.

3. The apparatus recited in Claim 2 wherein said planar members are joined at an angle in the range of approximately 30 degrees to approximately 150 degrees, as measured between the two respective planar members of the "V" shaped structure.

4. The apparatus recited in Claim 2 wherein said planar members are joined at an angle of approximately 90 degrees, as measured between the two respective planar members of the "V" shaped structure.

5. An improvement to a thermal sand removal oven comprising:

a plurality of sand removal members, said members secured to an inside wall of said thermal sand removal oven, said members operatively arranged to project into a recirculating air stream, said members located in said air stream between at least one metal casting encased in a sand mold and a device to move air through said oven.

5 6. An apparatus for the removal of sand from an air stream in a thermal sand removal oven comprising:

at least one metal casting encased in a sand mold in said thermal sand removal oven;

10 a device to move air through said oven, said device operatively arranged to move air along said air stream in said thermal sand removal oven, said air stream traversing said at least one metal casting encased in said sand mold, said air stream recirculating past said device and said at least one metal casting encased in said sand mold; and

15 a plurality of sand removal members, said members secured to an inside wall of said thermal sand removal oven, said members projecting into said recirculating air stream, said members located in said air stream between said at least one metal casting encased in said sand mold and said air moving device.

7. The apparatus recited in Claim 6 wherein each said sand removal member comprises two planar members joined to form a "V" shaped structure, where each structure includes a vertex, said vertex of said "V" shape pointing generally in the direction of the air stream.

5 8. The apparatus recited in Claim 7 wherein said planar members are joined at an angle in the range of approximately 30 degrees to approximately 150 degrees, as measured between the two respective planar members of the "V" shaped structure.

9. The apparatus recited in Claim 7 wherein said planar members are joined at an angle of approximately 90 degrees, as measured between the two respective planar members of the "V" shaped structure.

10 10. An apparatus for the removal of sand from a metal casting containing a sand core located in an air stream in a thermal sand removal oven comprising:

means to move air through said oven, said means to move air operatively arranged to move air along said air stream in said thermal sand removal oven, said air stream traversing said at least one metal casting containing said sand core, said air stream recirculating past said means to move air and said at least one metal casting containing said sand core; and

a plurality of sand removal members, said members secured to an inside wall of said thermal sand removal oven, said members projecting into said recirculating air stream, said members located in said air stream between said at least one metal casting containing said sand

20 core and said means to move air.